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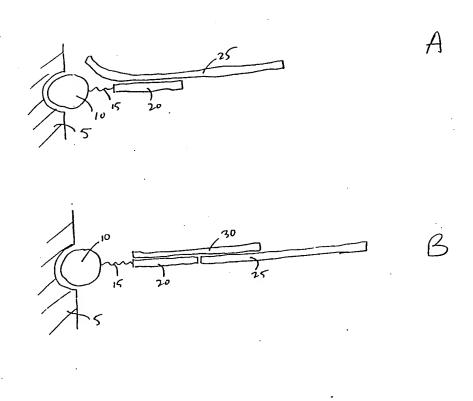
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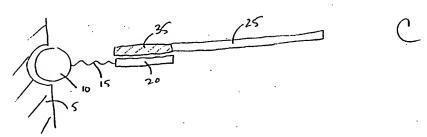
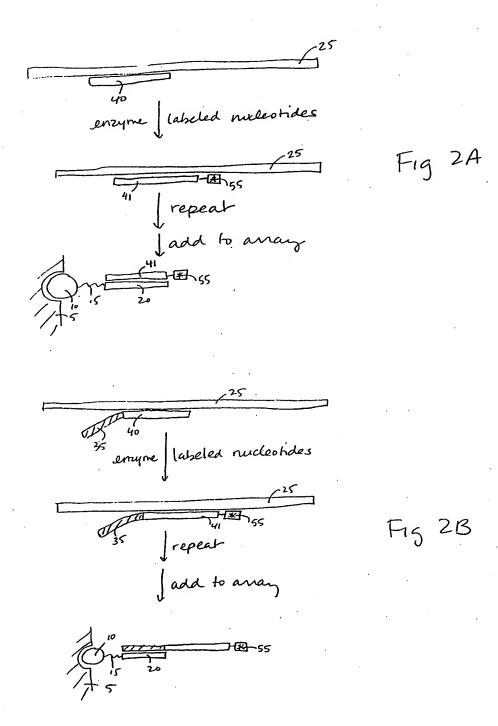
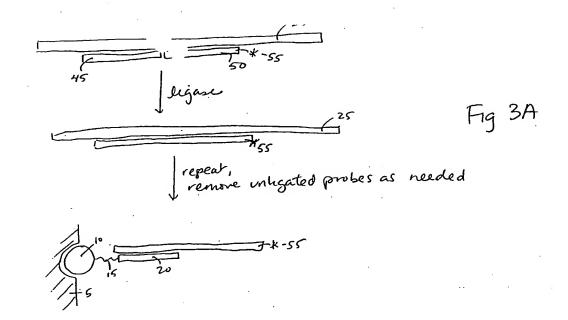


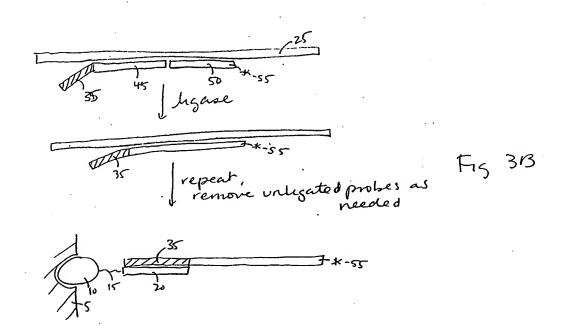
Fig 1











MAR 1 1 2003 E

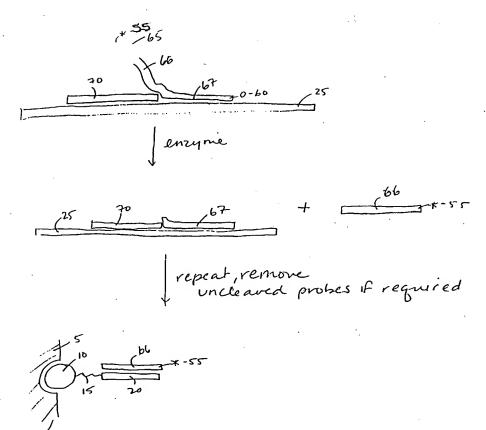
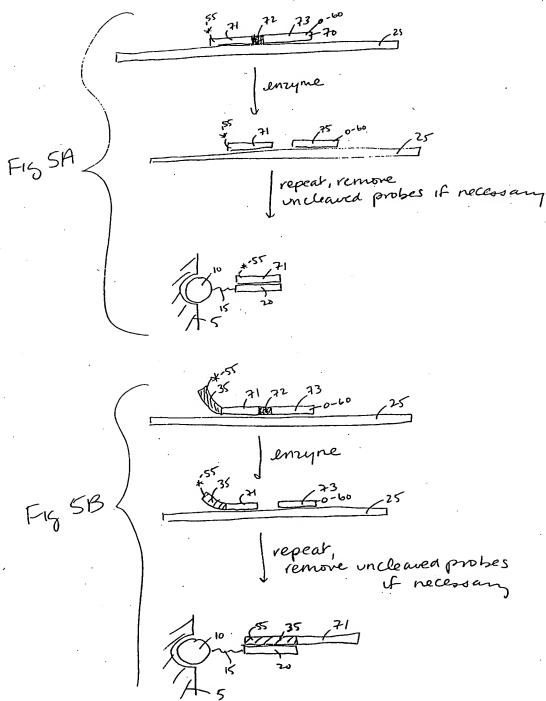


Fig 4







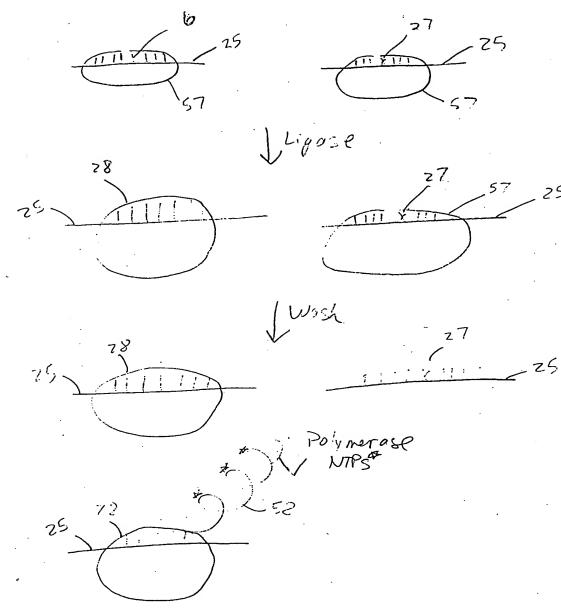


FIGURE 6

| Restriction Endonuclease

¥ 59

5 70 721

37

59

FIGURE P Continual MAR 1 & 2003 HE

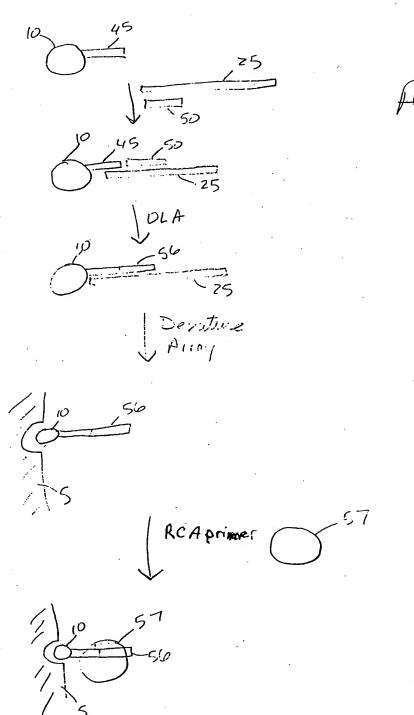


FIGURE 7

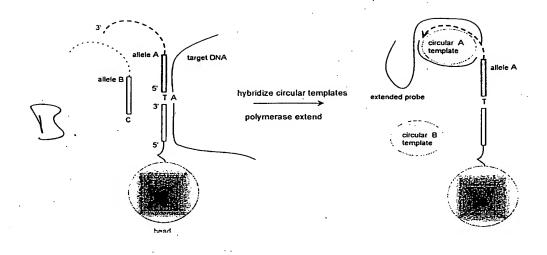
PART TRADENCE

Polymerase NTPs

5 10 5.7 5.6

FIGURE? ((ontinuil)





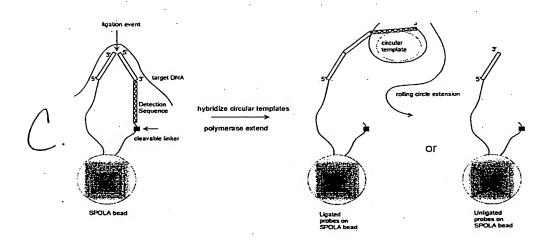


Figure 7 continuel



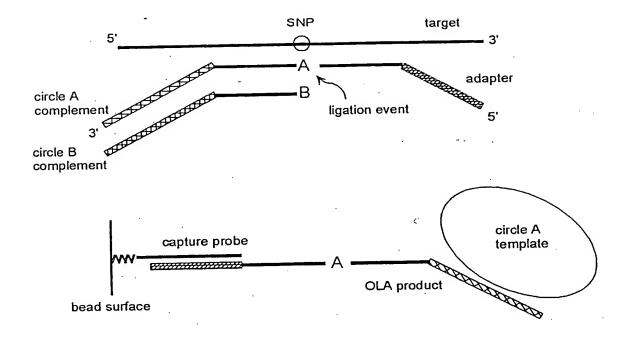


Figure 7 Contino



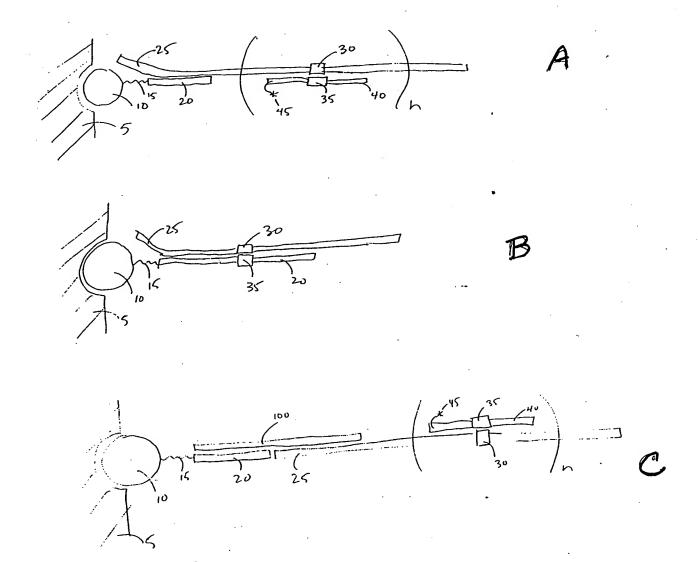


FIGURE 8

FIGURE 8 (continued)

1 labelled NTP | enzyme ophonal of removal of unextended primers

FIGURE 9



(50) 10) 15)

> FIGURE 9 (continued)

NIR LEGISTA

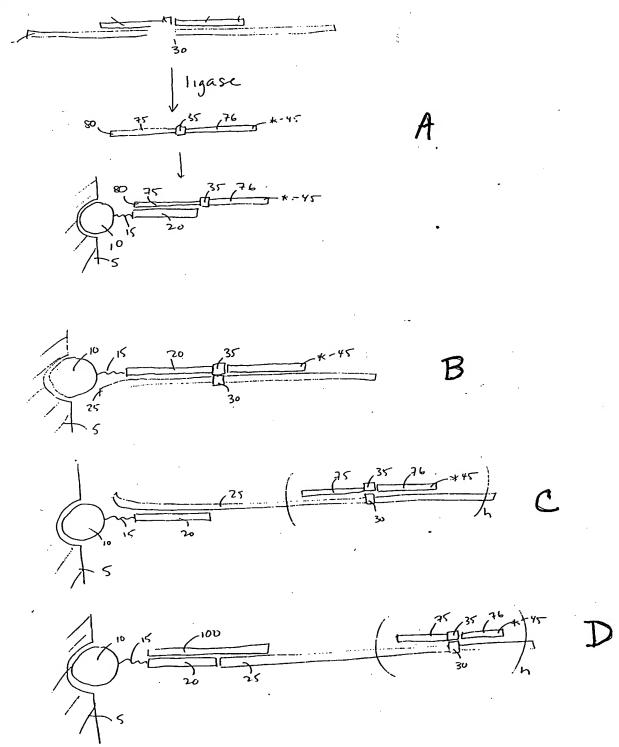


FIGURE 10.

FIGURE 10 (cont. nul) SPULA HSSAY FIGURE 11

FIGURE 12

WAR 1 TOTAL CHARLES

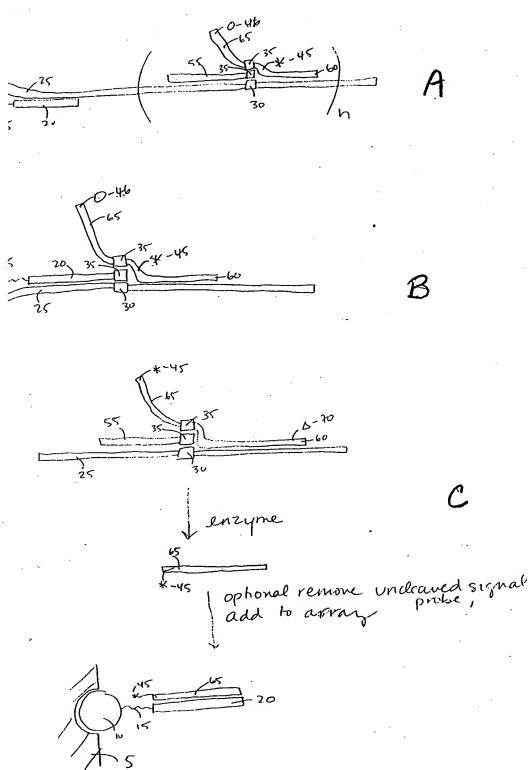


FIGURE B

WAR I RADENER

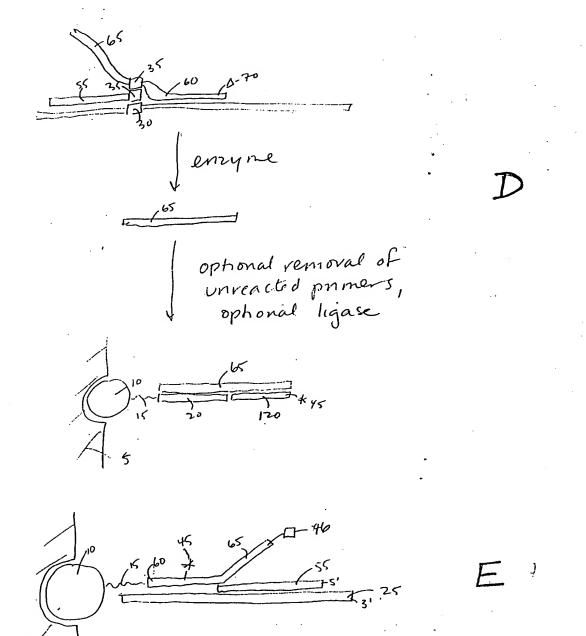


FIGURE 13 (continued)

modified dNTP extension modified dNTP

FIGURE 14

WAR 1 & THADEMAN

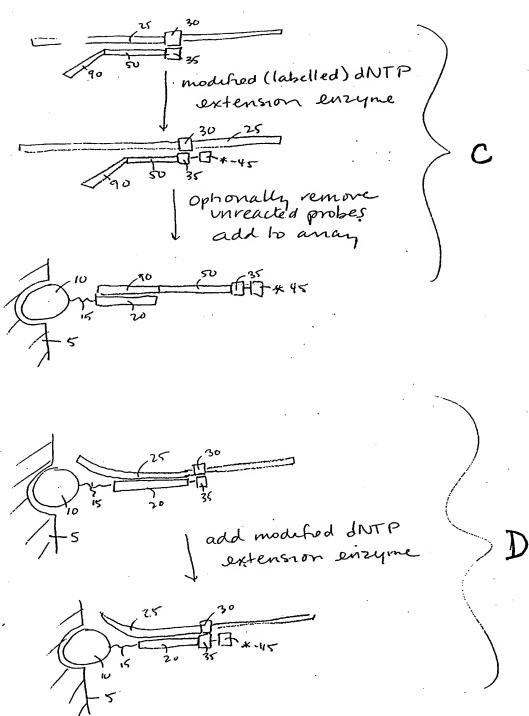
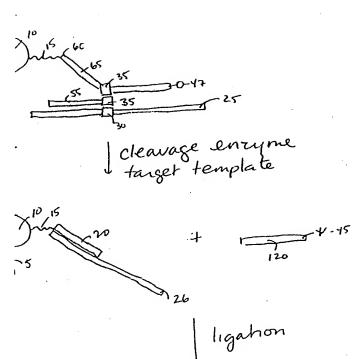


FIGURE 14 (continual)

FIGURE 15A

WIR 1 & MIGHT.



1 10 K 20 120 X 26

Solution phase add to ana unextender

FIGURE 16A

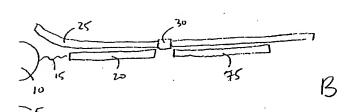
O I P E VCG

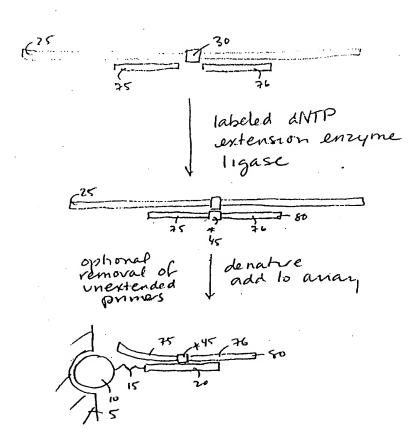
FIGURE 16 B





FIGURE 17

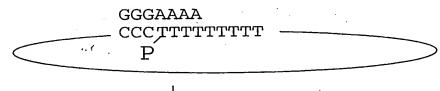




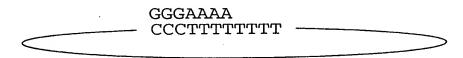


3'CCC ————TTTTTTT-P 5' cDNA

(1) Circularize cDNA with guide linker



(2) Ligate



(3) Extend as Rolling circle

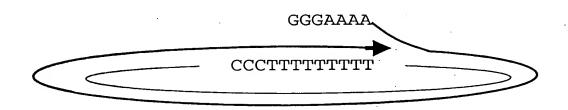


Figure 18



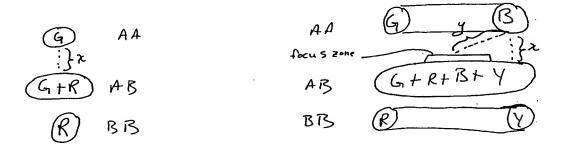
Single Labeled Probe

n enotype	Signal
AA	6/6
AB	G1/R
BB	RIR

Multi-Lubeled Probe

Grenotype	Signal
AA	G, 13/G, B
AB	G,B/RY
BB	R, Y/R, Y

Signal Range



x = single label distance y = Multi label distance

Figure 19



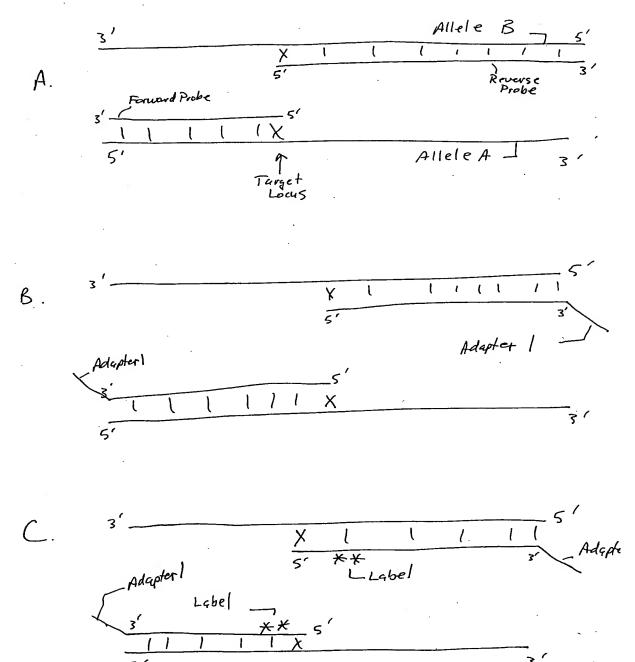


Figure 20

Adapter 1 Lebel 2 Lebel 1 Adapter 1

1 1 1 1 X 5'

Figure ZO (continued)



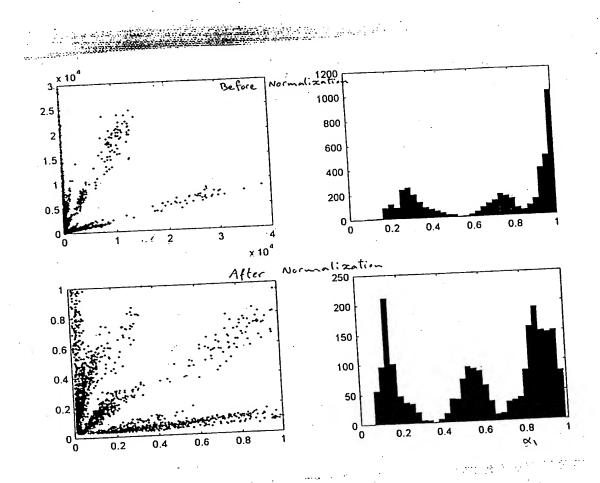
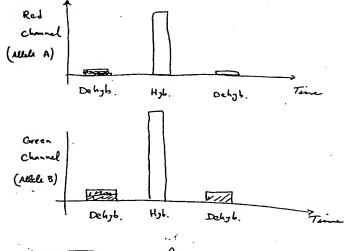
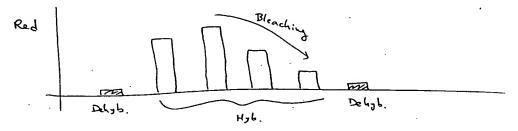


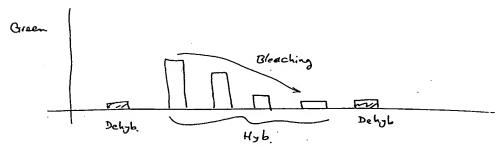
Figure 21





(Colled) A





(Fig. 22)



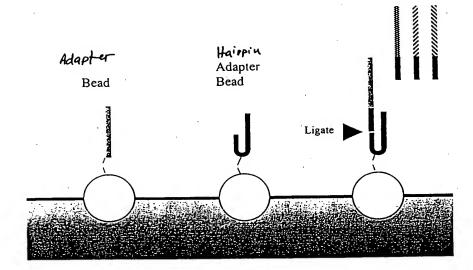
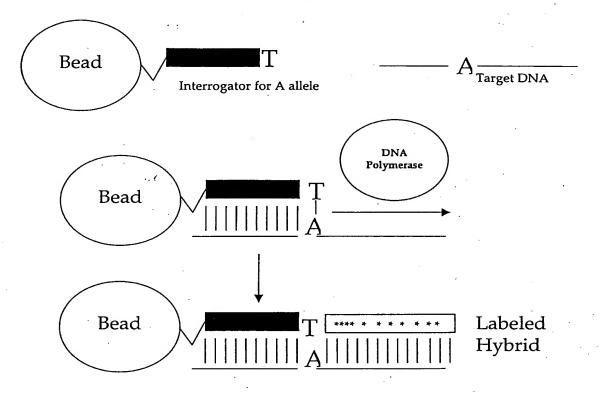


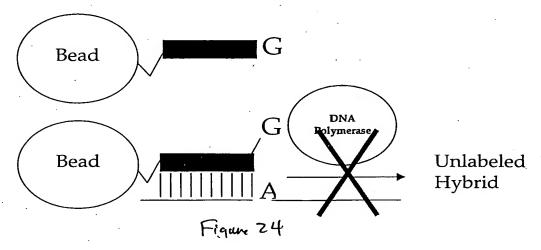
Figure 23



A. Match to SNP allele



B. Mismatch to SNP allele





Invader - PCR

imade reaction signed probe

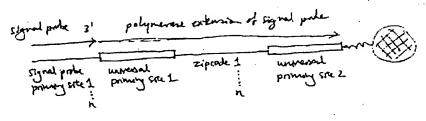
mixture of cleared & uncleared Signal probles

2) Removal of uncleared signal probes

e.a. by capture on streptaridin beads

via 3'-bloth

3) Signal probe primes synthesis of amplicon target strand



- PCR amphination
 rewing synthemed target strands are denotined from target 2 transferred
 to PCR reaction (universal primers, distres, tag pringuesse) for
 multiplex PCR. Universal primers are labelled e.g. with notion.
- 5) Array hybridization PCR amplicons containly expends are hybridized to array

Figure 25



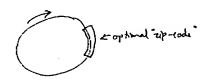
Invader-Rolling (Icle

) Invoder reaction

Meader Signal probe

target

(signal porter acts as primer on "rolly circle template Deat



Solid - phase version:

restrictmente (optimal)

rolling circle template is bethered to surface eg. to total rul. "features" in an array format, or to beads.

localization segue

hollony circle products can be localized e.g. by hybridization to adjacent probes or recovered for a liquid phase for hybridization to a detection array. e.g. by erraymostic cleanage

Figure 76